

INTENSITY MODULATED FREQUENCY SCANNING INVERSION SCHEME*

Kimberly McGill, Q. Su, R. Grobe

Abstract

We examine the range of validity of an optical imaging algorithm for a model diffusive medium based on intensity modulated laser light. The location and the scattering profile of an embedded object can be reconstructed from the reflected light as a function of the modulation frequency. We present a detailed derivation of the inversion algorithm and show how its limitations affect the quality of the image.

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[1] K.N. McGill, Q. Su and R. Grobe, Las. Phys. (in press).

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